OPPORTUNITY ~ DIVERSITY ~ RESPECT

STUDENTS	∞ STEAM OPPORTUNITIES ∞				
	Science/Medicine	High Tech/Web	Engineering	Arts-Related	Quantitative
Intensive Need At high risk of choosing a harmful path. Needs an immediate, comprehensive intervention or immersion experience with high levels of support. Needs comprehensive follow-up.	Animal care assistant at ASPCA.		Engineering project with Cambridge Community Center and Public Works		
Moderate Need Struggling academically or personally. Needs structured and reliable support with follow-up.	Assistant for summer 3rd-5th grade science program			Beyond the 4th Wall or Underground Railroad theater tech Internship	
Blends In/Invisible The average student that is rarely noticed. Needs an opportunity to be noticed and challenged in an exciting environment. Needs attentive mentor, check-ins, and follow-up.	Cambridge City Hospital Internship			MFA Restoration Internship	
Enthusiast Engaged, enthusiastic student. Independent, mature, self-motivated. Solid academic skills. Requires check-ins and follow-up.	Saturday internship at Harvard Peabody Museum	Social media design project for Museum of Science.			

Handwriting in red indicates examples of internships that could match different types of students/students in different circumstances with different internships based on their interests.

Advanced in STEAM A student with high level academic skills and strong interest in a STEAM-related topic. Needs an advanced opportunity to do high-level work. Requires check-ins and challenging follow-up.	Ecology internship with Harvard ecologist				Data analyst for genome project.

STEAM EXPERIENCES, ACTIVITIES, OPPORTUNITIES

LEARNERS

children

young people

young adults

adults

elderly

LEARNER

interests

experience

agency

identity

skills

motivation

knowledge

confidence

maturity

imagination

resources

circumstances

STEAM FIELDS

anatomy, art, archeology, architecture, astronomy, biology, botany, chemistry, computer science, conservation, design, digital art, dance, data analysis, drawing, ecology, engineering, environmental science, filmmaking, forestry, genetics, geology, health sciences, horticulture, life sciences, maker science, mathematics, metallurgy, microbiology, music, neuroscience, painting, photography, robotics, physics, sculpture, statistics, theater

STEAM SETTINGS

arts organization, city agencies, colleges, companies, contests, ecology centers, nonprofits, games, festivals, health centers, hospitals, laboratories, libraries, maker spaces, observatories, OST, OUTSIDE, museums, schools, theaters, virtual spaces, universities, youth centers

ELIMINATE BARRIERS, CREATE EQUITY, DEEPEN EXPERIENCE, URGENCY, ENCOURAGEMENT, PREPARATION, SELF-GUIDED, COLLEGE, DEVELOPMENTAL, TRAINING, CURRICULUM, WORKFORCE, SUCCESS, GROWTH, EFFICACY, CAREER, SELF-SUFFICIENCY, ECONOMIC, EMPOWERMENT

Ideal Candidate

-Proven track record for results, collaboration, leadership

-Advanced degree in STEM field

-Experience in corporate setting, understanding culture, expectations, environment

-Experience in diverse educational environment with sound pedagogical approach

-Strong professional network in Cambridge and Boston

-Ability to successfully engage all stakeholders students, school, business/academic communities, city, families

-Practical, flexible, and logical approach based on solid grasp of complexity of challenges

Prepared by Joan Abrams

Job Description

- Engage all stakeholders: students, schools (guidance counselors, teachers, deans, principal), district leaders, business and academic community, and City) to leverage resources and expertise to create STEAM opportunities for all Cambridge students
- Broaden scope and breadth of STEAM opportunities to ensure that students engage in appropriate, engaging, well-supervised environments with clear and well-communicated objectives, deliverables, milestones of achievement, assessments, and evaluation

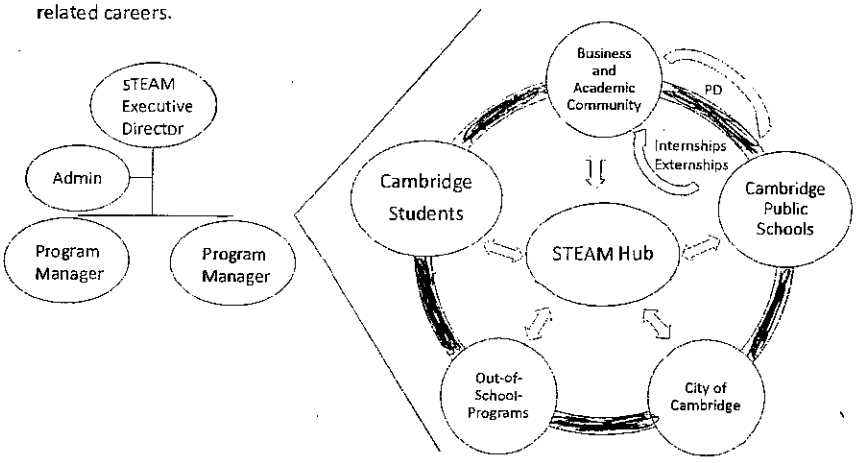
- Develop progressive, engaging K-12 STEAM curriculum with in-school and out-of-school components and links to current, real-world challenges
- Expand school professional development (PD) programs around STEAM careers, corporate culture, etiquette, etc. for teachers and guidance counselors
- Develop training programs to prepare and train students for professional environment with clear and consistent expectations for behavior
- Utilize existing school-based career and college personnel to maximize student participation
- Ensure high levels of engagement by tailoring training and placement opportunities to fit student interest and experience
- Evaluate programs to ensure that students are meeting benchmarks before moving to next level

- Devise systems for (1) communicating with students and families about opportunities and (2) allowing students to navigate opportunities and match individual interest to appropriate STEAM programs and internships
- Manage public relations, marketing, outreach and engagement with all Cambridge families

-Secure funding by business and academic community to ensure long-term success and sustainability of initiative

Proposed STEAM Hub in Cambridge

To create and facilitate STEAM opportunities for all Cambridge students to explore potential careers, to develop and enhance skills, and gain real world experience through a reciprocating network of schools, community leaders, business and academic communities, and the city for the purpose of preparing and training students for STEAM-related careers.



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Function of STEAM Hub

- Broaden scope, access, and reliability of student STEAM opportunities to ensure that all students engage in appropriate, engaging, meaningful, and well-supervised environments with clear and well-communicated objectives, deliverables, milestones of achievement, assessments, and evaluation
- Develop a progressive, engaging K-12 STEAM curriculum with in-school and out-of-school components and direct links to current, real world challenges
- Devise user-friendly and reliable system for students and families to access information about opportunities

industry
career awareness
job readiness

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